

Louisville Metro Air Pollution Control District
850 Barret Ave., Louisville, Kentucky 40204
31 May 2012

Title V Statement of Basis

Company: Reynolds Consumer Products, Inc. Louisville Foil Plant

Plant Location: 2827 Hale Avenue, Louisville, Kentucky 40211

Date Application Received: 04 October 2005 **Date Admin Complete:** 03 December 2005

Date of Draft Permit: 11 February 2012 **Date of Proposed Permit:** 14 April 2012
14 April 2012

District Engineer: Chris Gerstle **Permit No:** 158-97-TV (R1)

Plant ID: 0186 **SIC Code:** 3353 **NAICS:** 331315 **AFS:** 00186

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for particulate matter less than 2.5 microns (PM_{2.5}).

Application Type/Permit Activity:

☐ Initial Issuance

☐ Permit Revision

☐ Administrative

☐ Minor

☐ Significant

☒ Permit Renewal

Compliance Summary:

☒ Compliance certification signed

☐ Source is out of compliance

☐ Compliance schedule included

☒ Source is operating in compliance

I. Source Information

1. **Product Description:** Commercial aluminum foil
2. **Process Description:** Reynolds Consumer Products rolls and anneals aluminum until final product is achieved.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U1	Rolling Mills
U2	Annealing Ovens
U3	Boiler
U4	Parts Washers
U6	Core Paper Cyclone
U7	Storage Tanks
U10	Rotogravure/TO
U11	Emergency Firewater Pump
IA1	Insignificant Activities: Boiler Group
IA2	Insignificant Activities: Core Winders
IA3	Insignificant Activities: Inkjet Printers
IA4	Insignificant Activities: Line Carton Gluers
IA5	Insignificant Activities: Spent Filter Media Dumpster
IA6	Insignificant Activities: Rotomatic Dishwasher
IA7	Insignificant Activities: Roll Grinders

5. Permit Revisions:

Revision No.	Issue Date	Public Notice Date	Type	Page No.	Description
N/A	4/5/2001	12/10/2000	Initial	Entire Permit	Initial Permit Issuance
R1	5/31/2012	2/11/2012 4/14/2012	Renewal	Entire Permit	Scheduled Permit Renewal; Change of Responsible Official; Incorporation of Construction Permits 208-00-C for Annealing Oven #15, 209-00-C for the thermal afterburner, 30-03-C for a Boiler, 226-06-C for six ink jet printers, 636-07-C for one blast cabinet, 658-08-C for raw material change, 1-09-C for one rotogravure press, 2-09-C for one thermal oxidizer, 145-09-C for tanks and totes, 157-09-C for core winders, 32674-11-C for modification to the mills, 136-10-C for modification to the line carton gluers. Equipment in Construction Permit 3-09-C was not installed. Equipment in Construction Permit 636-07-C was removed. Remove Emission Unit U5. Update the Insignificant Activities List

6. Fugitive Sources: No fugitive sources reported.

7. Emission Summary:

Pollutant	Actual Emissions (tpy) 2010 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	10.58	No
NO _x	13.91	No
SO ₂	0.15	No
PM ₁₀	2.43	No
VOC	1241.67	Yes
Single HAP > 1 tpy	NA	No
Total HAPs	0.67	No

8. Applicable Requirements:

☒ PSD ☒ 40 CFR 60 ☒ 40 CFR 63 ☐ SIP
☒ NSR ☐ 40 CFR 61 ☒ District-Origin ☐ Other

9. **Future MACT Requirements:** The source is not major for HAPs, but there may be future area source MACT requirements.

10. **Referenced Federal Regulations in Permit:**

40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 64	Compliance Assurance Monitoring for Major Stationary Sources

II. Regulatory Analysis

1. **Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
2. **Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.
3. **Prevention of Accidental Releases 112(r):** The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount.
4. **40 CFR Part 64 Applicability Determination:** The source is subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* since the source is major for VOC and needs to apply control devices to ensure the compliance with the VOC emission standards specified in the Title V permit.
5. **Basis of Regulation Applicability**

a. **Plant-wide**

Reynolds Consumer Products is a major source for VOC. Regulation 2.16 - *Title V Operating Permits* establishes requirements for major sources.

The source is subject to an emission cap of 1,298 TPY for VOC from emission units U1 and U2 for PSD/NSR netting.

Regulations 5.01, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Reynolds Consumer Products submitted their Category 1 and Category 2 TAC Environmental Acceptability Demonstration to the District on January 31, 2007 and the additional submittal dated August 22, 2007. The report stated that emissions of the Category 1 TACs (benzene, formaldehyde) and the Category 2 TACs (lead, naphthalene, and toluene) are de minimis. LMAPCD approved the STAR EA Compliance Demonstration for

Category 1 TACs on October 6, 2008. An additional Category 2 Environmental Acceptability Demonstration was received on March 24, 2008 and the company claimed that no Category 2 TAC was reported in the 2006 Toxic Release Inventory program, per Regulation 5.21, section 4.14.1. LMAPCD approved the STAR EA Compliance Demonstration for Category 2 TACs on January 18, 2012.

The TAC emissions from the combustion of natural gas are considered to be “de minimis emissions” by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

b. **Applicable Regulations**

Regulation	Title	Type
1.05	Compliance with Emission Standards and Maintenance Requirements	SIP
2.04	Construction or Modification of Major Sources in or Impacting upon on-Attainment Areas (Emission Offset Requirements)	SIP
2.05	Prevention of Significant Deterioration of Air Quality	SIP
2.16	Title V Operating Permits	SIP
5.01	General Provisions	Local
5.02	Adoption and Incorporation by Reference of National Emissions Standards for Hazardous Air Pollutants	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
6.09	Standard of Performance for Existing Process Operations	SIP
6.18	Solvent Metal Cleaning Equipment	SIP
6.24	Standard of Performance for Existing Sources Using Organic Materials	SIP
6.29	Graphic Arts Facilities Using Rotogravure or Flexographic Printing	SIP
6.43	Volatile Organic Compound Emission Reduction Requirements	SIP
7.02	Adoption of Federal New Source Performance Standards	SIP
7.06	Standards of Performance for New Indirect Heat Exchangers	SIP
7.08	Standards of Performance for New Process Operations	SIP
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	SIP
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	SIP

Regulation	Title	Type
40 CFR 60 Subpart A	General Provisions	Federal
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Federal
40 CFR 63 Subpart A	General Provisions	Federal
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Federal
40 CFR 64	Compliance Assurance Monitoring for Major Stationary Sources	Federal

c. **Basis for Applicability**

Regulation	Basis for Applicability
1.05	All sources emitting VOCs in quantities equal to or greater than 100 tons per year and all Control Technique Guidance (CTG) sources emitting VOCs in quantities of 25 tons or more per year or some lesser applicability amount as defined in the specific CTG regulation shall maintain daily records and calculations that demonstrate daily compliance with the VOC emission standards defined in the applicable portions of Regulation 6 or 7.
2.04	The county was non-attainment for VOC.
2.05	The potential uncontrolled VOC emissions are greater than 40 tons per year.
2.16	Title V source
6.07	Existing indirect heat exchangers for which construction or modification is commenced before September 1, 1972 are subject to Regulation 6.07.
6.09	The equipment is subject to the PM emission standard in Regulation 6.09 and was installed before September 1, 1976.
6.18	Applies to each cold cleaners, open top vapor degreasers, and conveyorized degreasers that use volatile organic compounds (VOCs) to remove soluble impurities from metal surfaces. Cold solvent parts washers are subject to Regulation 6.18, which provides the requirements for the equipment and the operation of the equipment.
6.24	Any affected facility using any organic materials which was in being prior to June 13, 1979.
6.29	Applies to each printing line for packaging rotogravure, publication rotogravure, specialty rotogravure, or flexographic printing.
6.43	This source was identified to enable a 15% reduction in VOC emissions from the 1990 baseline level and voluntarily agreed to the requirements.
7.02	Adoption of Federal New Source Performance Standards
7.06	Establishes emission standards for indirect heat exchangers constructed after April 9, 1972 with a heat input capacity of less than 250 MMBtu/hr.
7.08	Equipment installed after September 1, 1976 and subject to the PM emission standard.
7.12	Establishes emission standards for each storage vessel for volatile organic compounds that commences construction or modification on or after April 19, 1972, and has a storage capacity greater than 250 gallons.
7.25	Affected facility constructed after June 13, 1979 for VOC. The core winders use an adhesive which contains VOC, therefore is subject to Regulation 7.25.

Regulation	Basis for Applicability
40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart Dc	Subpart Dc applies to steam generating units for which construction or modification is commenced after June 9, 1989 and has a maximum design heat input capacity between 10 to 100 MMBtu/hr.
40 CFR 63 Subpart A	These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants.
40 CFR 63 Subpart ZZZZ	Applies to all RICEs located at area sources of HAP emissions.
40 CFR 64	Applies to each pollutant specific emission unit that is subject to an emission limitation or standard; uses a control device to achieve compliance; and has pre-control emissions that exceed or are equivalent to the major source threshold. CAM applies because the rolling mill is subject to an emission limitation, uses a control device to achieve compliance and has pre-control emissions that exceed the major source threshold. The rotogravure press is subject to an emission limitation; uses a control device to achieve compliance; and has pre-control emissions that exceed the major source threshold.

d. **Emission Unit U1 – Mill Group**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E1	Rolling Mill #1	N/A	1969	2.04 6.24 6.43
E2	Rolling Mill #2	N/A	1962	
E3	Rolling Mill #3	N/A	1960	
E4	Rolling Mill #4	N/A	1967	
E5	Rolling Mill #5	N/A	1971	
E6	Rolling Mill #6	N/A	1997	6.43
				7.25 (BACT)
				40 CFR 64
E26	Baron Still Distillation Unit	NA	1988	7.25 (non BACT)

ii. **Standards/Operating Limits****VOC**

- 1) Through Regulation 2.04, the 1,258 tons per year VOC limit was established after the company demonstrated that this project netted out for NSR.

Before the installation of Rolling Mill #6, the plant had a VOC limit of 778 tons per year for all equipment in Units U1 and U2. The potential emissions from Rolling Mill #6 were 480 tons of VOC per year. (778 + 480 = 1,258)

During the 10 year contemporaneous period there were VOC emission increases of 4.6 tons per year from parts cleaners, storage tanks and the distillation unit. In order to 'net out', the company withdrew 455 tons per year emission

reduction credits of VOC from the Emissions Bank.

Subtracting the VOC emission credits from the total increase in emissions results in an overall emission increase of 29.6 tons per year. $[(480 + 4.6) - 455 = 29.6]$

This is less than the significant level of 40 tons specified in Regulation 2.04, Appendix A.

The source requested to modify the rolling mills to allow them to operate at an increased speed and to increase their production capacities. An increase in allowed emissions from 1,258 to 1,298 tons per year VOC is not a "significant emissions increase" as that term is defined in Regulation 2.05.

- 2) Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III Solvent includes any organic material which is not classified as a Class I or a Class II solvent.
- 3) Regulation 6.43 required a 15% reduction in volatile organic compound (VOC) emissions from the 1990 baseline emissions level to be achieved by November 15, 1996. Section 17 requires Reynolds Consumer Products' rolling coolant to meet certain specifications.
- 4) Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT). The oil absorption and recovery unit ("scrubber") that controls VOC emission from Rolling Mill #6 (90% capture and 95% control efficiency) is considered BACT to demonstrate compliance with District Regulation 7.25. The equipment specified on the permit application has been determined by the District to meet the requirement in District Regulation 7.25 for "Best Available Control Technology".
- 5) The following affected facilities are included in the Regulation 7.25 non-BACT plant-wide 5 ton per year limit:

Unit	Point	Description	PTE
U1	E26	Baron Still	4.38
U2	E20	Annealing Oven #31	2.26
IA2	E43-E50	Core Winders	0.26
IA3	E56-E63	Ink Jet Printers	1.43
IA4	E73-E77	Line Cartoners	0.23
IA6	E87	Rotomatic Dishwasher	0.07

iii. Monitoring and Record Keeping**VOC**

- 1) Regulations 6.43, 6.24, and 7.25 do not require any specific monitoring requirements for VOC, however, Regulation 2.16, section 4.1.9.1 establishes monitoring to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring requirements as specified in U1 Specific Condition S2.a.
- 2) Regulation 6.43 has specific record keeping requirements to ensure ongoing compliance with the terms and conditions of the permit. The source has record keeping requirements as specified in U1 Specific Condition S2.a.iii.
- 3) Regulations 6.24 and 7.25 do not require any specific record keeping requirements, however, Regulation 2.16, section 4.1.9.2 requires sufficient record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has record keeping requirements as specified in U1 Specific Conditions S2.a.ii., iv. through ix.
- 4) The Compliance Assurance Monitoring rule aims to have owners and operators maintain their control devices at the levels that ensure compliance. The rule allows owners and operators to design CAM plans on current requirements and operating practices, to select representative parameters upon which compliance can be ensured, to establish indicator ranges - or procedures for setting the indicator ranges - for the parameters, to use performance testing and other information to verify the parameters and ranges, and to correct control device performance problems as expeditiously as practicable.
- 5) Reynolds is major for VOC and a control device is needed to achieve compliance with District Regulation 7.25 on Rolling Mill #6. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, Reynolds was required to propose a CAM Plan for VOC, based on current process and control device operating requirements and practices. The initial CAM Plan was received on October 4, 2005. Supplemental information was received on May 5, 2011 and April 4, 2012.
- 6) The absorber is monitored continuously by a message system. The message system is an automated control program which measures numerous parameters integral to the proper operation of Rolling Mill #6's oil absorption and recovery unit ("scrubber"). It monitors the proper functioning of pumps, motors, vacuum, and filtration units, in addition to various fluid levels, temperatures, and pressures within the scrubber system. When a problem is detected, the mill operators are notified immediately by an

error message on the computer screen and by a flashing light in the control room. The exact location of the problem is identified on an electronic schematic in the control room. If the problem cannot be corrected immediately, the mill will automatically shut down at the end of the coil and will not restart until the problem is corrected. In the event of an absorber malfunction, an error message appears on the operator's computer screen and immediate corrective action will be initiated.

- 7) Monthly records of VOC emissions are required to show compliance with the various ton per year limits.

iv. **Reporting**

VOC

Regulations 6.24, 6.43 and 7.25 do not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements and report semi-annually as specified in U1 Specific Condition S3.a.

e. **Emission Unit U2 – Oven Group**

i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E9	Annealing Oven #1 (Lanly Co.)	8 MMBtu/hr	1954	2.04 6.24
E10	Annealing Oven #2 (Lanly Co.)	12 MMBtu/hr	1965	
E11	Annealing Oven #3 (Lanly Co.)	12 MMBtu/hr	1970	
E12	Annealing Oven #4 (Lanly Co.)	12 MMBtu/hr	1971	
E13	Annealing Oven #5 (Loftus Engineering)	12 MMBtu/hr	1960	
E16	Annealing Oven #21 (Salem Corp)	7.2 MMBtu/hr	1975	
E17	Annealing Oven #22 (Surface Combustion)	3 MMBtu/hr	1975	
E18	Annealing Oven #24 (Surface Combustion)	3 MMBtu/hr	1975	
E19	Annealing Oven #25 (Surface Combustion)	Electric	1975	
E15	Annealing Oven #15 (Seco Warwick) Schneider Filter	22 MMBtu/hr	2001	7.25 (BACT)
E20	Annealing Oven #31 (Sunbeam Equip. Co.)	24 MMBtu/hr	1985	7.25 (non BACT)
C10	Thermal Afterburner	2 MMBtu/hr	2001	

i. **Standards/Operating Limits****VOC**

- 1) Through Regulations 2.04 and 2.05, 1,298 tons per year VOC limit was established after the company demonstrated that this project netted out for NSR. (See III.5.d.ii.1) for details)
- 2) Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III Solvent means any organic material which is not classified as a Class I or a Class II solvent.
- 3) Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

ii. **Monitoring and Record Keeping****VOC**

Regulation 7.25 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in U2 Specific Condition S2.a.

iii. **Reporting****VOC**

Regulations 6.24 and 7.25 do not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in U2 Specific Condition S3.a.

f. **Emission Unit U3 - Boiler Group**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E38	Clever Brooks Boiler	24.5 MMBtu/hr	2001	7.06
				40 CFR Part 60 Subpart Dc

ii. **Standards/Operating Limits**1) **SO₂**

- (a) The Cleaver Brooks Boiler, rated at 24.494 MMBtu/hr and installed in 2001 is subject to Regulation 7.06. The emission standard for SO₂ is determined in accordance with Regulation 7.06, section 5.1.1. For natural gas combustion and a heat

input capacity less than 145 MMBtu/hr, the standard is 1 lb/MMBtu.

- (b) The Cleaver Brooks Boiler is subject to 40 CFR 60, Subpart Dc. However, there is no SO₂ emission standard for natural gas fired boilers in Subpart Dc.

2) **PM**

The Cleaver Brooks Boiler, rated at 24.5 MMBtu/hr and installed in 2001 is subject to Regulation 7.06. The emission standard for PM is determined in accordance with Regulation 7.06, section 4.1.4 as follows:

$$\text{Total Heat Input Capacity} = 24.494 \text{ MMBtu/hr}$$

$$\text{PM limit} = 1.919 \times (24.5)^{-0.535} = 0.35 \text{ lb/MMBtu}$$

3) **Opacity**

The boiler is subject to the opacity standards in accordance with Regulation 7.06, section 4.2.

iii. **Monitoring, Record Keeping and Reporting**

SO₂/PM/Opacity

- 1) A one-time PM and SO₂ compliance demonstration has been performed for the boilers, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for these boilers with respect to PM and SO₂ emission limits.
- 2) The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

g. **Emission Unit U4 – Parts Washers (no secondary reservoirs)**

i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E27	Building E-1	55 gallons	2009	6.18
E28	Mill 6 Building	55 gallons	1996	
E29	Reynolds Wrap parts shop	6 gallons	1979	

ii. **Standards/Operating Limits**

VOC

Regulation 6.18, sections 4.1 and 4.2 establish the equipment requirements and the operating requirements for cold solvent metal parts cleaners.

iii. **Monitoring and Record Keeping****VOC**

Regulation 6.18, section 4.4.2 establishes record keeping requirements for an operator of a cold cleaner using solvent.

iv. **Reporting****VOC**

There are no periodic compliance reporting requirements for Regulation 6.18.

h. **Emission Unit U6 – Core Paper Group**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E33	Core paper cyclone	10,000 CFM	1972	6.09

ii. **Standards/Operating Limits**1) **Opacity**

Regulations 6.09, section 3.1 limits the visible emissions to twenty percent (20%) opacity.

2) **PM**

The core paper cyclone is subject to Regulation 6.09, section 3.2. The emission standard for PM is based upon the process weight rate, which is less than 1,000 lb/hr. Therefore the PM limit is 2.58 lb/hr.

iii. **Monitoring, Record Keeping and Reporting**1) **Opacity**

The District has determined that no periodic visible emissions surveys are required for this equipment.

2) **PM**

A one-time compliance demonstration was performed for PM for this equipment and the pound per hour standard cannot be exceeded uncontrolled.

i. **Emission Unit U7 – VOC Storage Tanks**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E34	Rolling oil, tank 1	20,080 gal	1989	7.12
E35	Rolling oil, tank 2	20,080 gal	1989	
E78	Rolling oil, tank 3	10,000 gal	1989	
E79	Rolling oil, tank 3	10,000 gal	1989	
E36	Rolling oil, tank 5	20,080 gal	1989	
E37	Rolling oil, tank 6	20,080 gal	1989	
E80	Rolling oil, tank 7	10,000 gal	1989	
E81	Rolling oil, tank 8	10,000 gal	1989	
E82	UCON, tank 9	1,000 gal	1989	
E83	UCON	5,000 gal	1989	
E39, E40	Two adhesive tanks	5,000 gal	2009	
E41	Non stick coating tank	350 gal	2009	
E42	N-propyl acetate tote	350 gal	2009	

ii. **Standards/Operating Limits****VOC**

Since these tanks are all below 40,000 gallons and contain VOCs with a true vapor pressure less than 1.5 psia, there are no applicable standards.

iii. **Monitoring and Record Keeping****VOC**

The compliance monitoring requirements in Regulation 7.12 do not apply to this equipment. Regulation 2.16, section 4.1.9.2 requires sufficient record keeping to ensure compliance with the terms and conditions of the permit. The source is required to maintain records of the contents of the storage tanks to demonstrate the vapor pressure is below 1.5 psia.

iv. **Reporting****VOC**

Regulation 7.12 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires reporting to ensure compliance with the terms and conditions of the permit.

j. **Emission Unit U10 – Coating Operations**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E65	One (1) Rotogravure printing/coating press	1,200 ft/min	August 2009	6.29
	One (1) natural gas fired dryer	1.54 MMBtu/hr	August 2009	40 CFR 64 5.01
C11	One (1) Thermal Oxidizer	1.00 MMBtu/hr	August 2009	5.21

ii. **Standards/Operating Limits**1) **VOC**

- (a) The permit contains a less than 40 tons per year VOC emission cap to avoid PSD/NSR.
- (b) Regulation 6.29 has four different requirement options to limit the emission of VOC from an affected facility.
- (c) Reynolds Consumer Products is a CTG source and must show compliance on a daily basis per Regulation 1.05, section 4.1.

2) **TAC**

The potential uncontrolled hourly emissions (10.4 lb/hr) of ammonia cannot exceed the lb/hr de minimis threshold limit, however, the annual emissions could exceed the de minimis limit of 48,000 lb/yr, therefore, the source is required to meet an emission limit of 48,000 lb/yr for ammonia.

iii. **Monitoring and Record Keeping**1) **VOC**

- (a) Regulation 6.29 does not require any specific monitoring requirements for VOC, however, Regulation 2.16, section 4.1.9.1 establishes monitoring requirements to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in U10 Specific Condition S2.a.
- (b) A thermal oxidizer will be used to achieve the VOC emission reduction. A Method 25A performance test was conducted on the inlet and outlet of the thermal oxidizer. An average destruction efficiency of 98.4% was achieved. The combustion temperature ranged from 1,499 °F and 1,567 °F at a line speed of 1,200 ft/min.

- (c) Regulation 6.29 has specific record keeping requirements for the rotogravure press along with sufficient record keeping to ensure ongoing compliance with the terms and conditions of the permit required by Regulation 2.16, section 4.1.9.2.
- (d) Regulation 6.29 has specific record keeping requirements for the control device along with sufficient record keeping to ensure ongoing compliance with the terms and conditions of the permit required by Regulation 2.16, section 4.1.9.2.
- (e) Monthly records of VOC emissions are required to show compliance with the ton per year limit.
- (f) Compliance assurance monitoring requires the permit to have:
 - i. The approved monitoring approach, including the indicators to be monitored;
 - ii. A definition of exceedances or excursions;
 - iii. The duty to conduct monitoring;
 - iv. Minimum data availability and averaging period requirements; and
 - v. Milestones for testing.

In addition, the source proposed a maintenance plan for the RTO.

2) **TAC**

Regulation 5.21 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in U10 Specific Condition S2.b.

iv. **Reporting**

1) **VOC**

Regulation 6.29 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in U10 Specific Condition S3.a.

2) **TAC**

Regulation 5.21 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in U10 Specific Condition S3.b.

k. **Emission Unit U11 - -Emergency Firewater Pump**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E85	Emergency Firewater Pump	218 BHP	1996	40 CFR 63 Subpart ZZZZ

This equipment is subject to 40 CFR Part 63 Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, because it involves an existing RICE located at an area source of HAP emissions, but the compliance date is May 3, 2013.

ii. **Standards/Operating Limits****HAP**

- 1) Regulation 40 CFR 63 Subpart ZZZZ limits non-emergency operating hours (maintenance checks and readiness testing) to 100 hours per year, but additional hours may be requested from the District.
- 2) Regulation 40 CFR 63 Subpart ZZZZ requires periodic maintenance which includes changing the oil and filter, inspecting the air cleaner, and inspecting hoses and belts per Table 2d.

iii. **Monitoring and Record Keeping****HAP**

- 1) Regulation 40 CFR 63 Subpart ZZZZ requires keeping records showing when periodic maintenance is performed.
- 2) Regulation 40 CFR 63 Subpart ZZZZ requires keeping records of how long and why the RICE is operated.

iv. **Reporting****HAP**

Regulation 40 CFR 63 Subpart ZZZZ requires reporting each instance an operation limit is not met.

1. **Emission Unit IA1 – Boiler Group**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E67	Fulton Fuel Fired Steam Boiler	2.1 MMBtu/hr	2007	7.06
E84	York Shipley Boiler	7.328 MMBtu/hr	2011	7.06

ii. **Standards/Operating Limits**1) **SO₂**

- (a) The Fulton Fuel Fired Steam Boiler, rated at 2.1 MMBtu/hr and installed in 2007 is subject to Regulation 7.06. The emission standard for SO₂ is determined in accordance with Regulation 7.06, section 5.1.1. For natural gas combustion and a heat input capacity less than 145 MMBtu/hr, the standard is 1 lb/MMBtu.
- (b) The York Shipley Boiler, rated at 7.328 MMBtu/hr and installed in 2011 is subject to Regulation 7.06. The emission standard for SO₂ is determined in accordance with Regulation 7.06, section 5.1.1. For natural gas combustion and a heat input capacity less than 145 MMBtu/hr, the standard is 1 lb/MMBtu.
- (c) The boilers are not subject to 40 CFR 60, Subpart Dc.

2) **PM**

- (a) The Fulton Fuel Fired Boiler, rated at 2.1 MMBtu/hr and installed in 2007 is subject to Regulation 7.06. The emission standard for PM is determined in accordance with Regulation 7.06, section 4.1.4 as follows:
 Total Heat Input Capacity = 26.6 MMBtu/hr
 PM limit = $1.919 \times (26.6)^{-0.535} = 0.33 \text{ lb/MMBtu}$
- (b) The York Shipley Boiler, rated at 7.328 MMBtu/hr and installed in 2001 is subject to Regulation 7.06. The emission standard for PM is determined in accordance with Regulation 7.06, section 4.1.4 as follows:
 Total Heat Input Capacity = 33.93 MMBtu/hr
 PM limit = $1.919 \times (33.93)^{-0.535} = 0.29 \text{ lb/MMBtu}$

3) **Opacity**

The boilers are subject to the opacity standards in accordance Regulation 7.06, section 4.2.

iii. **Monitoring, Record Keeping, and Reporting****SO₂/PM/Opacity**

- 1) A one-time PM and SO₂ compliance demonstration was performed for the boilers, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for these boilers with respect to PM and SO₂ emission limits.
- 2) The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

m. **Emission Unit IA2 – Core Winders**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E43-E53	Core winders	Various	Various	7.08 7.25 (non BACT)

ii. **Standards/Operating Limits**1) **VOC**

Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

2) **Opacity**

Regulation 7.08 section 3.1.1 limits the visible emissions to twenty percent (20%) opacity.

3) **PM**

The core winders are subject to Regulation 7.08, section 3.1.1. The emission standard, per winder, for PM is based upon the process weight rate, which is less than 1,000 lb/hr. Therefore the PM limit is 2.34 lb/hr.

iii. **Monitoring, Record Keeping and Reporting**1) **VOC**

Regulation 7.25 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has

monitoring and record keeping requirements as specified in IA3 Specific Condition S2.a. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in IA2 Specific Condition S3.a.

2) **Opacity**

The District has determined that no periodic visible emissions surveys are required for this equipment.

3) **PM**

A one-time compliance demonstration was performed for PM for this equipment and the pound per hour standard cannot be exceeded uncontrolled.

n. **Emission Unit IA3 – Carton Labeling Inkjet Printers**

i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E56	Ink Jet Printer, Line W4	338 cases/hr	1997	7.25 (non BACT)
E57	Ink Jet Printer, Line W5	180 cases/hr	1997	
E58	Ink Jet Printer, RK3	105 cases/hr	1997	
E59	Ink Jet Printer, RK 4	105 cases/hr	1997	
E60	Ink Jet Printer, Line L7	417 cases/hr	1997	
E61	Ink Jet Printer, Line L8	417 cases/hr	1997	
E62	Ink Jet Printer, Line L6	1260 cases/hr	2009	
E63	Ink Jet Printer, Warehouse	1260 cases/hr	2011	

ii. **Standards/Operating Limits**

VOC

Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

iii. **Monitoring and Record Keeping**

VOC

Regulation 7.25 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in IA3 Specific Condition S2.

iv. **Reporting****VOC**

Regulation 7.25 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in IA3 Specific Condition S3.

o. **Emission Unit IA4 – Line Cartoners**i. **Equipment:**

Emission Point	P/PE	Capacity (bucket/min)	Install or Mod. Date	Applicable Regulation
E72	Line 1 Cartoner (RW #1)	350	1968	6.24
E73	Line 2 Cartoner (RW #2)	425	2006	7.25 (non BACT)
E74	Line 3 Cartoner (RW #3)	425	2011	
E75	Line 4 Cartoner (RW #4)	250	2008	
E76	Line 5 Cartoner (RW #5)	150	2000	
E77	Line 6 Cartoner (RW #6)	425	2009	

ii. **Standards/Operating Limits****VOC**

- 1) Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III Solvent means any organic material which is not classified as a Class I or a Class II solvent.
- 2) Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

iii. **Monitoring and Record Keeping****VOC**

Regulations 6.24 and 7.25 do not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in IA4 Specific Condition S2.

iv. **Reporting****VOC**

Regulations 6.24 and 7.25 do not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in IA4 Specific Condition S3.

p. **Emission Unit IA5 – Spent Filter Media Dumpster**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E86	Spent Filter Media Dumpster	NA	post 1987	7.25 (non BACT)

ii. **Standards/Operating Limits****VOC**

Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

iii. **Monitoring and Record Keeping****VOC**

Regulation 7.25 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in IA5 Specific Condition S2.

iv. **Reporting****VOC**

Regulation 7.25 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in IA5 Specific Condition S3.

q. **Emission Unit IA6 – Rotomatic Dishwasher**i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E87	Rotomatic Dishwasher	NA	post 1987	7.25 (non BACT)

ii. **Standards/Operating Limits****VOC**

Regulation 7.25 requires an affected facility to be equipped with and utilize best available control technology (BACT).

iii. **Monitoring and Record Keeping****VOC**

Regulation 7.25 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1-2 establishes monitoring and record keeping to

ensure ongoing compliance with the terms and conditions of the permit. The source has monitoring and record keeping requirements as specified in IA6 Specific Condition S2.

iv. **Reporting**

VOC

Regulation 7.25 does not require any specific reporting requirements for VOC, however, Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit. The source is required to identify all deviations from permit requirements for each pollutant and report semi-annually as specified in IA6 Specific Condition S3.

r. **Emission Unit IA7 – Roll Grinders**

i. **Equipment:**

Emission Point	P/PE	Capacity	Installation Date	Applicable Regulation
E88	Roll Grinders	NA	pre 1987	6.24

ii. **Standards/Operating Limits**

VOC

Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III Solvent means any organic material which is not classified as a Class I or a Class II solvent.

iii. **Monitoring and Record Keeping**

VOC

Since the standard cannot be exceeded uncontrolled, there are no monitoring or record keeping requirements for VOC.

iv. **Reporting**

VOC

Since the standard cannot be exceeded uncontrolled, there are no reporting requirements for VOC.

III. Other Requirements

- 1. Temporary Sources:** The source did not request to operate any temporary facilities.
- 2. Short Term Activities:** The source did not report any short term activities.
- 3. Emissions Trading:** N/A
- 4. Alternative Operating Scenarios:** The source did not request an alternative operating scenario in its Title V application.

5. Compliance History

Incident Date(s)	Regulation Violated	Result
1/21/1997	1.05	Settled
11/12/1997	2.03	Settled
9/13/2000	6.18	Settled

Reynolds Consumer Products Inc. is required to submit their annual Compliance Certification to the District on or before April 15th of each calendar year. As of the effective date of Permit 158-97-TV (R1), there are no compliance schedules in effect or progress reports required.

- 6. Emission Factors:** The following emission factors shall be used unless more accurate District approved emission factors become available. Other calculation methodologies may be used after receiving written approval from the District.

Equipment	Product	Emission Factor	EF Source
Boiler	Natural gas combustion	100 lb NO _x /MMCF	AP-42 Section 1.4-1
		84 lb CO/MMCF	
		7.6 lb PM/MMCF	AP-42 Section 1.4-2
		7.6 lb PM ₁₀ MMCF	
		5.5 lb VOC/MMCF	
		0.6 lb SO ₂ /MMCF	
		1.8 lb Hexane/MMCF (HAP)	AP-42 Section 1.4-3
Rolling Mills	Rolled aluminum	Based upon a material balance which is calculated annually or 82 lb VOC/MMft ²	Source specific
Oven	Annealed aluminum	8.82 lb VOC/MMft ²	Source specific

7. Insignificant Activities

Equipment	Quantity	PTE (tpy)	Reg. Basis
Indirect heat exchangers < 10 MMBtu/hr			
York Shipley (7.328 MMBtu/hr)	1	3.15 NO _x	2.02, 2.1.1
Fulton (2.1 MMBtu/hr)	1	0.90 NO _x	2.02, 2.1.1
Natural Gas Heaters	25	2.12 PM each	2.16, 1.22.1.2.1
Internal mobile combustion engines	<100	0.35 NO _x each	2.02, 2.2
Storage tank - diesel or fuel oil (not for sale)	3	<0.01 VOC each	2.02, 2.3.25
All pressurized VOC storage vessels	<100 (propane)	0	2.02, 2.3.26
Cooling Towers	5	0.04 PM each	2.16, 1.23.1.2.1
Spent Filter Media Dumpster	1	4.76 VOC	See Note 8)

- 1) Insignificant activities identified in District Regulation 2.02 section 2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
- 2) Insignificant activities identified in District Regulation 2.02 section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 4) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
- 5) The emissions from this item are accounted for in Unit U1.
- 6) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that monitoring, record keeping, or reporting requirements apply to the insignificant activities listed below.

Equipment	Quantity	PTE (tpy)	Reg. Basis
IA2 Core Winders	10	0.02 VOC	See Note 7)
IA3 Inkjet Printers	8	0.18 VOC	See Note 8)
IA4 Line Cartoners	6	0.04 VOC	See Note 7), 8)
IA6 Rotomatic Dishwasher	1	0.07 VOC	See Note 8)

- 7) This equipment has an applicable regulation, but meets the definition of insignificant activity in Regulation 2.16, section 1.23.1.2. Regulation 7.08 applies, with a standard of 2.34 lb/hr, but the equipment cannot exceed the standard uncontrolled so there are no monitoring or record keeping requirements. The emissions shall be reported on the annual emission inventory.

- 8) This equipment has an applicable regulation, but meets the definition of an insignificant activity in Regulation 2.16, section 1.23.1.2. Regulation 7.25 applies.
- 9) The company has discontinued the use of trichloroethylene (a Class II solvent) in all degreasing processes in the plant (Formerly Emission Unit U5). The new product the plant is using is called Simple Green® All-Purpose Cleaner (a Class III solvent). The new product does not fall into the applicability of Regulation 6.24, section 1.2.5. The organic solvent comprises much less than 20% of the volatile content by volume as applied.